



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/665,229	09/18/2000	John M. Slater	LIT-PI-478	4669
7590	04/16/2004		EXAMINER	DANG, HUNG Q
W Gary Goodson Bechtel BWXT Idaho LLC P O Box 1625 Idaho Falls, ID 83415-3899			ART UNIT	PAPER NUMBER
			2635	

DATE MAILED: 04/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)
	09/665,229	SLATER ET AL.
	Examiner	Art Unit
	Hung Q Dang	2635

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED on 2/25/2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) The period for reply expires 2 months from the mailing date of the final rejection.
 b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
 ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
 2. The proposed amendment(s) will not be entered because:
 (a) they raise new issues that would require further consideration and/or search (see NOTE below);
 (b) they raise the issue of new matter (see Note below);
 (c) they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____.

3. Applicant's reply has overcome the following rejection(s): claim 9.
 4. Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 5. The a) affidavit, b) exhibit, or c) request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
 6. The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
 7. For purposes of Appeal, the proposed amendment(s) a) will not be entered or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: 9.

Claim(s) rejected: 1-8 and 10-62.

Claim(s) withdrawn from consideration: _____.

8. The drawing correction filed on 01 October 2003 is a) approved or b) disapproved by the Examiner.

9. Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.

10. Other: _____.

Continuation of 5. does NOT place the application in condition for allowance because:

Regarding applicant's argument in the last paragraph of page 15 and in the first paragraph of page 16 regarding claim 30, applicant argues that it would not be obvious to a person of ordinary skill in the art to be motivated to extrapolate from temperature and pressure measurements in the operational environment of Schuermann to moisture measurement, examiner's response to the above argument is that regardless of what the measuring parameters are disclosed in Schuermann, examiner uses Schuermann just to show the conventionality of using passive transponders. Hirsch teaches using an active transponder (NOT passive) for measuring moisture in soil, wherein said transponder uses solar energy as a power source. Even though, Schuermann does not teach measuring moisture in soil, however, Hirsch already teaches that limitation. Examiner uses Schuermann to show the conventionality of using passive transponder in transponder systems. To further support examiner's position, examiner would like to quote a following reference, which shows the commonality of interchanging passive and active transponders in a transponder system and still achieves the same purpose. Nysen U.S Patent 6,107,910 discloses a dual mode transponder systems, wherein the transponder can either be a passive or active transponder (column 2 lines 33-37). Therefore, it would have been obvious to one skilled in the art to alternatively substitute the active transponder in the system disclosed by Hirsch with a passive transponder, as evidenced by Schuermann, in order to achieve the same purpose of measuring moisture in soil. Furthermore, both Hirsch and Schuermann's teaching help save energy in a transponder system. Therefore together of all of the above reasons, one skilled in the art would also be motivated to alternatively substitute the active transponder disclosed by Hirsch with a passive transponder, as evidenced by Schuermann, in order to measure moisture in soil.

In responding to applicant's argument in the last paragraph of page 17 that the probe in Hirsch reference requires power to be present prior to an excitation signal from a reader and the present invention uses inductive coupling, powers up as a result of an excitation signal from a reader, examiner asserts that such argument merely states the nature of an active and passive transponder. And the motivation for substituting the active transponder disclosed by Hirsch with a passive transponder, as evidenced by Schuermann, is already explained above. See above argument.

In responding to applicant's arguments on page 18 of the response, first of all, examiner would like to point out that applicant argues that the excitation signal of the present invention may contain commands, which is not even specifically claimed. Therefore, said argument is not persuasive.

In responding to applicant's argument in the last paragraph of page 18 regarding the TRANSITORY electromagnetic energy limitation as claimed in claims 1, 11, 14, 16 and 30, examiner asserts that in any conventional passive transponder systems, the excitation signal, of course, has to provide sufficient energy to provide power to the transponder(s) in order to conduct a desired measurement of the interested medium. Therefore, such limitation has been commonly known and utilized in passive transponder systems.

Applicant's argument in the second paragraph of page 19 is nonanalogous to the claimed limitations. Cellular phones require so much more power in order to operate as opposed to a moisture sensing transponder. Therefore, said argument is not persuasive.

Applicant's argument in the third paragraph of page 20 regarding claim 7 is not persuasive because it does not explain why and what is it that the examiner has not provided a clear and particular argument or a convincing line of reasoning why a person of ordinary skill in the art would make this modification. The office action clearly stated that it would have been obvious to one of ordinary skill in the art to recognize that using different frequencies for said data signal and said excitation signal would avoid interference for the reader because the reader might be sending out other excitation signals while the data signal is arriving. Therefore, one of the reasons to use different frequencies is to avoid interference.

Applicant's argument on page 23 regarding claim 9 is persuasive and therefore, the rejection of claim 9 is withdrawn.

Applicant's argument regarding claims 21-23 in the second paragraph of page 24 is not persuasive because it does not specifically direct to the claimed limitation.

Applicant's argument regarding claim 34 in the last paragraph of page 25 and in the first paragraph of page 26 of applicant's response is not persuasive because the argument directs to "passive" elements of the moisture sensing capacitor and the inductive loop, which are not claimed in the claim.

MICHAEL HORABIK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

